

## REGISTRATION INFORMATION

The pages that follow contain scheduled training offerings for Fiscal Year 2006 (October 2005 - September 2006) as well as a brief description of all Environmental Health Support Center (EHSC) training courses. Additional information is available by calling 505-248-4258 or through the Environmental Health Support Center Web site at:

**<http://www.opheng.ihs.gov>**

Request course registration as follows:

**Contact your Area Training Coordinator:** A listing of Training Coordinators for each Indian Health Service Area is provided on the following page. These individuals will provide registration assistance to both IHS, tribal and other governmental employees.

**By the Internet:** Nomination for Training may be requested through the EHSC web site as indicated above. Go to the EHSC training section and fill out the online registration request form. The request form will be routed to the appropriate Area Training Coordinator.

These requests will be consolidated with other training requests from the Area and submitted to EHSC.

**EHSC does not provide for direct registration of students. All requests should be routed through the Training Coordinator for your respective Area, organizational unit or agency.**

A registration confirmation and instructions for attendance at the course will be mailed to all approved training registrants approximately 45 days prior to the training.

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## **IHS AREA EHSC TRAINING COORDINATORS**

### **Aberdeen Area IHS**

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Aberdeen, SD 57401  
605-226-7599

### **Anchorage Area IHS**

CDR Ed Lohr, DSO Manger  
1901 S. Bragaw Suite 200  
Anchorage, Alaska 99508  
907-729-3527

### **Billings Area IHS**

George Allen, Assoc. Director  
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Billings, Montana 59103  
406-247-7082

### **Nashville Area IHS**

Cindy Yahola-Gallegos, Secretary  
711 Stewarts Ferry Pike  
Nashville, TN 37214  
615-736-2503

### **Oklahoma City Area IHS**

Linda Zientek, Secretary, OEHE  
3625 NW 56<sup>th</sup> St, 5 Corp. Plaza  
Oklahoma City, Oklahoma 73112  
405-957-3874

### **Portland Area IHS**

Rena Gill, Secretary, OEHE  
1220 SW 3<sup>rd</sup> Ave, Rm. 476  
Portland, Oregon 97204  
503-326-2014

### **Dallas Engineering Services**

Barbara Tulloch, Staff Assistant  
1301 Young St. Rm. 1071  
Dallas, TX 75202  
214-767-3493

### **Headquarters IHS**

Dora Old Elk, Secretary  
IHS Headquarters East  
12300 Twinbrook Parkway, Suite 600A  
Rockville, MD 20852 301-443-1247

### **Albuquerque Area IHS**

CAPT Russel Pederson, Director, OEHE  
5300 Homestead Rd. NE  
Albuquerque, New Mexico 87110  
505-248-4600

### **Bemidji Area IHS**

Louis Erdrich, Director OEHE  
522 Minnesota Ave, NW  
Bemidji, Minnesota 56601  
218-759-3363

### **California Area IHS**

CAPT Paul Young, Director, DEHS  
1825 Bell Street, Suite 200  
Sacramento, California 95825  
916-566-7023

### **Navajo Area IHS**

CAPT Charles Dowell, Director OEHE  
P.O. Box 9020  
Window Rock, AZ 86515  
928-871-5852

### **Phoenix Area IHS**

CAPT Alan Croft, Assoc. Dir. OEHE  
40 North Central Ave., Suite 600  
Phoenix, Arizona 85004  
602-364-5068

### **Tucson Area IHS**

CDR Donald Williams, IP Specialist  
7900 S. J Stock Road  
Tucson, Arizona 85746  
520-295-2580

### **Seattle Engineering Services**

Jean Johnson, Secretary  
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# ENVIRONMENTAL HEALTH PROGRAM MANAGEMENT

## Environmental Health Orientation (10000)

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This is a five-day course for engineers and sanitarians that are relatively new to the Indian Health Service and the Office of Environmental Health and Engineering (OEHE) Program. The course covers program philosophy, policy, administration and scientific/technical material basic to the OEHE program.

**Who should attend:** IHS and Tribal personnel, new or with limited experience, working with the Office of Environmental Health and Engineering programs of the IHS.

**Course Length:** 5 days

**Continuing Education Units:** Not available

**Objectives:**

- Understand the organizational structure and responsibilities of OEHE programs
- Develop networking relationships with peers from other IHS Areas
- Develop basic skills essential to OEHE program operations
- Meet national program managers and other OEHE personnel

**Dates and Location(s):** January 23-27, 2006 TBD

## Basic Officer Training Course (BOTC)

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The 3-day BOTC is an introduction to the U.S. Public Health Service. Course is presented at a faster pace in recognition of the experience and knowledge gained by officers while serving on active duty. Military bearing and courtesy, career development, promotions, leave, compensation, awards, and resource utilization are some of the many topics introduced during this course. Officer must attend entire course and wear an appropriate PHS uniform.

**Who should attend:** Commissioned Officers on extended active duty with a CAD of December 31, 2000 or prior

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Understand the role of the Commissioned Corps as a uniformed service
- Learn more about career development and resources available to CO's
- Successful completion of course will allow officer enrollment in the web-based Independent Officer Training Course (IOTC) with examination series
- Network with other PHS officers from other agencies

**Dates and Location(s):** January 18-20, 2006 TBD

## **NEPA (16000)**

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A workshop to bring NEPA coordinators and project managers up to date on the latest NEPA rules and regulations. We will discuss the Agency's methods for NEPA review and any exclusion that exist. A discussion is planned on NEPA coordination with other Agencies (EPA, USDA, and HUD).

**Who should attend:** IHS or Tribal engineers and IHS-wide project managers

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Manage the NEPA process to comply with the intent of the law
- Implement CEQ regulations and agency requirements
- Review and write EAs, FONSI, EISs, RODs that comply with NEPA and agency guidelines

**Dates and Location(s):**

May 2-4, 2006

Denver, CO

## **SFC Data Systems (18600)**

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This course is presented by the Sanitation Facilities Construction Branch, HQ, and provides an overview of the structure and operation of the Sanitation Tracking and Reporting System (STARS). Course is recommended for staff having responsibility for data entry and review of STARS information on behalf of their Area.

**Who should attend:** SFC Program managers and data entry staff

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Review STARS data system function and structure
- Understand data entry requirements
- Provide feedback to national program managers on system needs
- Develop custom report generation skills

**Dates and Location(s):**

April 17-21, 2006

Albuquerque, NM

## Professional Training Techniques (10800)

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This course is designed to teach the skills necessary for developing and presenting effective, motivating, and enjoyable professional training sessions. Students will learn how to manage learning in the classroom, stimulate participation of attendees, energize their training styles, understand the adult learning process, and become more flexible in their information delivery.

**Who should attend:** This course is open to anyone who is charged with developing and presenting professional training sessions. Environmental Health Officers & Technicians, Engineers, and all other disciplines that are required to teach, train, or give public presentations are encouraged to attend.

**Course length:** 3 days

**Continuing Education Units:** 0

**Objectives:**

- Learn to develop and present more effective professional training sessions.
- Gain an understanding of the needs of the adult learner.
- Learn to motivate and manage learning in the classroom.
- Learn to prepare more effective visual aids.
- Gain experience in the public speaking field.

**Date and location:**

June 13-15, 2006  
July 25-27, 2006

Billings, MT  
Albuquerque, NM

## **EHE PROGRAM MANAGEMENT COURSES NOT OFFERED THIS FISCAL YEAR**

### **Introduction to Management Skills (10500)**

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The one-week introductory is designed to provide students with basic management skills such as: leadership, interpersonal effectiveness, problem solving, group dynamics, and time management. This is a highly interactive course that emphasizes understanding personality types and group interactions as essential skills for program managers. This is a prerequisite to the advanced course.

### **Mid-level Management (18500)**

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This three-day course is intended for engineers and sanitarians at the district, assistant chief, or similar mid-management level. Elements of IHS organizational structure, policy, personnel, supervision and management techniques that will prove useful as these individuals move into higher-level positions within IHS are included. This training is conducted in or near the Rockville, Maryland Area. An orientation to the offices within IHS Headquarters in the Parklawn Building is included.

### **Advanced Management Skills (10600)**

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The one-week advanced management course is designed to provide students with additional management skills. This course builds on concepts developed in the Introduction to Management Skills course, which is a prerequisite to registration in this course.

### **T1-T3 Workshop for Sanitation Facilities Construction (11000)**

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This three-day seminar will analyze the new amendments to Public Law 93-638. The options available to tribes under the law for a Title I contract or a Title III compact are covered in depth with examples presented for both options and their respective impacts to the Sanitation Facilities Construction Program. The seminar is intended to provide a complete analysis of the tribal/federal relationship under these regulations. The course is designed for tribal and IHS personnel involved in 93-638 construction activities.

### **Government Contract Law (16200)**

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Presented by Georgetown University, this course discusses basic elements of government contract law using instructors with extensive legal backgrounds in government contracting. Practical examples are utilized throughout giving students a broad exposure to actual contract litigation.



## **Environmental Law and Compliance (16100)**

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This course offers attendees a description and how to comply with their requirements of the major environmental laws. The curriculum is designed for those who are new to the environmental field, or who need a comprehensive review of the major laws and regulations. Topics include: Environmental Law System, Environmental Liabilities, Water Pollution Control, Air Pollution Control (Clean Air Act Compliance), RCRA/Hazardous Waste CERCLA/Superfund, EPCRA/SARA Title III, NEPA, TSCA/OSHA, Underground Storage Tanks, Management Strategies, Inspections and Audits.

## **Introduction to ARCVIEW GIS (16390)**

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This two-day course gives the hands-on experience and conceptual overview needed to take full advantage of ArcView's display, editing, analysis and presentation mapping functions. Class participants become familiar with the components of the ArcView GIS interface and learn how documents called views, tables, charts and layouts are used to display and work with different kinds of information.

## **Construction Project Management (17000)**

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This training provides exposure to private industry concepts used in defining a scope of work, establishing costs estimates & construction budgets, quality control, field communication & coordination, on-site control, labor & work in place, job cost & productivity reporting, freight coordination & tracking, resource allocation, material take offs, procurement, and construction scheduling. In addition, this course explores the relationship between IHS/Tribal governments and various contributing agencies.

# INJURY PREVENTION

## Injury Prevention Program Evaluation (12000)

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The course is an introduction to injury program evaluation and designed for students with community based injury prevention project or program experience.

**Who should attend:** Open to individuals that evaluate Injury prevention programs

**Course Length:** 3 days

**Continuing Education Units:** Pending

**Objectives:**

- Learn the processes of evaluation
- Learn applications for various types of program evaluation
- Design an evaluation for an injury prevention program

**Dates and Location(s):** September 12-14, 2006 Albuquerque, NM

## Intermediate Injury Prevention (12500)

---

This course builds upon the knowledge and skills addressed in the Introduction to Injury Prevention. This course reviews the basics of data interpretation, coalition building, program planning, evaluation, marketing and advocacy. The course includes multiple hands-on community and computer-based activities.

**Prerequisite:** Introduction to Injury Prevention

**Who should attend:** Tribal health board members, health directors, tribal council members, IHS environmental health personnel, and tribal injury prevention staff

**Course Length:** 3 ½ days

**Continuing Education Units:** 1.8

**Objectives:**

- Receive an overview of the complex causes of injury
- Review strategies for coalition maintenance
- Review of web-based data identification tools
- Review of basic data collection techniques
- Receive an overview of process and impact evaluation methods

**Dates and Location(s):** December 6-9, 2005 Albuquerque, NM

## **Advanced Injury Prevention (12800)**

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This course builds upon the knowledge and skills addressed in the introductory and intermediate courses by focusing on the ways that data, coalitions, program planning, evaluation, marketing, and advocacy can be integrated in a well-managed program. The course will include hands-on skill-building activities designed to be transportable to participants' home communities.

**Who should attend:** Tribal health board members, health directors, tribal council members, IHS environmental health personnel, and tribal injury prevention staff. Introduction to Injury Prevention is a prerequisite for this course.

**Course Length:** 3 ½ days

**Continuing Education Units:** 1.8

### **Objectives:**

- Review the process to develop an Injury Prevention Program budget
- Review strategies to collaborate with the various media outlets
- Understand how to develop injury prevention reports and presentations
- Understand how to develop short and long-term strategic plans

**Dates and Location(s):** May 2-5, 2006 Albuquerque, NM

## **Injury Prevention Instructor's Workshop (12950)**

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This workshop was developed for current and future Injury Prevention Course instructors. During this 3-day workshop, various teaching techniques will be discussed to better qualify staff to participate in the various Injury Prevention Courses, as well as providing them with the information necessary to act as a lead instructor for the courses.

**Who should attend:** Environmental health or injury prevention personnel who may participate as an instructor in any of the injury prevention courses

**Course Length:** 3 days

**Continuing Education Units:**

### **Objectives:**

- Review the latest injury prevention course materials
- Review the most effective training techniques

**Dates and Location(s):** March 21-26, 2006 Albuquerque, NM

## Introduction to Epi Info (13000)

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This three-day introductory course is designed for those in environmental health or related fields that are involved in data gathering and analysis activities for injury prevention, safety, disease, or other surveillance programs. The course uses sample data sets to cover commonly used programs and commands in Epi Info epidemiological software (2003).

**Who should attend:** Tribal health board members, health directors, tribal council members, IHS environmental health personnel, and tribal injury prevention staff

**Course Length:** 3 ½ days

**Continuing Education Units:** Not available

**Objectives:**

- Enter data; create views
- Construct databases; perform basic analyses
- Define new variables for use in data analysis; and use Epi Map to graphically depict data

**Dates and Location(s):**

November 15-17, 2005  
December 6-8, 2005

Billings, MT  
Anchorage, AK

## **INJURY PREVENTION COURSES NOT OFFERED THIS FISCAL YEAR**

### **Issues in Injury Control (60000)**

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This is the first of the required core courses of the Injury Prevention Specialist Epidemiology Fellowship. It provides an introduction to conducting injury prevention research projects. Special emphasis is placed on hypothesis formation, choosing the correct study design, data collection, ethical considerations, and how to conduct literature reviews.

### **Introduction to Injury Prevention (11500)**

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This introductory course will discuss the core components of the public health approach to preventing injuries among American Indians and Alaska Natives. Participants will work in small teams to address specific injury issues in fictional communities based on actual Tribal communities throughout the country. The course will culminate in a mock Tribal Council activity, during which team members will present information about their assigned community and their ideas for addressing the injuries in that community.

### **Intentional Violence Prevention (12900)**

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This course will focus on practical applications of existing knowledge to prevent intentional injuries in American Indian/Alaska Native communities. In addition to an overview of intentional violence, the primary topics this year (2004) will be intimate partner violence and suicide. There will be a combination of lectures, class exercises, small group work, and presentations by tribal and IHS staff who have conducted prevention projects in their communities.

# INJURY PREVENTION PROGRAM FELLOWSHIP

## Injury Prevention Program Planning (60600)

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This is the first of the required core courses of the Injury Prevention Specialist Program Development Fellowship. The focus of this course is on program design, project objectives and timelines, and on effective strategies for the prevention of injuries in American Indian and Alaska Native communities. Fellows will attend case study presentations describing Injury Prevention Programs in American Indian and Alaska Native communities.

**Who should attend:** Current members of the Injury Prevention Program Development Fellowship Class

**Course Length:** 4 days

**Continuing Education Units:** Not available

**Objectives:**

- Finalize Fellowship project outline
- Conduct preliminary literature review

**Dates and Location(s):**

May 15-29, 2006

TBD

## Program Development Fellowship: Implementation & Evaluation (60700)

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The focus of this course will be on coalition building, action planning and program management. Fellows will be instructed how to use evaluation in project development, while participating in course components with their mentors. Fellows will also attend guest lectures given by injury prevention experts. On-campus libraries will be available for additional literature review, and Fellows will have access to local computer labs as well.

**Who should attend:** current members of the Injury Prevention Program Development Fellowship Class.

**Course Length:** 5 days

**Continuing Education Units:** Pending

**Objectives:**

- Finalize project proposal
- Complete a draft outline of program, evaluation or marketing plan

**Dates and Location(s):**

August 14-18, 2006

Salt Lake City, UT

## **Program Development Fellowship Field Course (60800)**

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During this course, Fellows will have the opportunity to choose from a menu of hands-on, field-based learning activities sponsored by local Tribes and/or Service Units. These sessions will be facilitated by Tribal Staff or other Fellowship instructors and will build skills directly applicable to Fellows' projects.

**Who should attend:** current members of the Injury Prevention Program Development Fellowship Class.

**Course Length:** 5 days

**Continuing Education Units:** Not available

**Objectives:**

- The Fellows will have the opportunity to obtain specialized project skills
- Conduct various data collection exercises
- Develop/design program materials (newsletters, press releases, etc.)
- Develop coalition meeting materials
- Develop budget plans and justifications

**Dates and Location(s):**                      October 16-20, 2005                      Phoenix, AZ

## **Program Development Fellowship: Marketing and Advocacy (60900)**

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This course is designed to offer current Fellows an opportunity to develop their presentation and public speaking skills, as well as their report writing skills. Fellows will have the opportunity to identify financial resources and develop program budgets and grant proposals.

**Who should attend:** current members of the Injury Prevention Program Development Fellowship Class.

**Course Length:** 5 days

**Continuing Education Units:** Not available

**Objectives:**

- The Fellows will have the opportunity to develop their presentation skills
- Improve report writing
- Conduct a grant writing exercise
- Develop budget plans and justifications

**Dates and Location(s):**                      February 6-10, 2006                      Albuquerque, NM

## **Injury Prevention Program Development Fellowship Symposium (61000)**

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Current Injury Prevention Specialist Program Development Fellows present their special projects before IHS Headquarters, Area Staff and Tribal leaders.

**Who should attend:** Tribal health board members, health directors, tribal council members, IHS environmental health personnel, and tribal injury prevention staff.

**Course Length:** 1 day

**Continuing Education Units:** Not available

Objectives:

- Injury Prevention personnel will have the opportunity to see the current Program Development Fellowship class present the findings of their yearlong project.

**Date and Location:**

**June 7-8, 2006**

**Washington, D.C.**



## **IP FELLOWSHIP COURSES NOT OFFERED THIS FISCAL YEAR**

### **Injury Prevention Epidemiology Fellowship Summer Session (60100)**

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The summer session focuses on epidemiology of injuries. Fellowship participants complete three required and up to three optional graduate level courses in a formal university setting. As part of the required courses, the participants will complete a literature review or study design for their respective research projects.

### **Injury Prevention Field Research (60200)**

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This course is conducted through a series of field trips and workgroup exercises in different IHS Areas. Based on an identified local injury problem, student workgroups address different components of the steps toward a successful injury-prevention action plan. Intervention strategies are developed based on actual injury case histories.

### **Injury Prevention Presentation Skills (60300)**

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This is an Injury Prevention Fellowship course providing current fellows with expert guidance in the analysis and interpretation of research results. The course addresses the skills necessary to prepare a special study in a publishable format and present the findings to a professional audience.

### **Injury Prevention Epidemiology Fellowship Symposium (60400)**

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Current Injury Prevention Specialist Epidemiology Fellows present their special projects before IHS Headquarters, Area Staff and Tribal leaders.

### **Injury Prevention Specialist Fellowship Colloquium (60500)**

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Injury Prevention Specialist Fellowship graduates are invited to attend a continuing education colloquium that is offered approximately every 18 months. This program is designed to keep injury prevention practitioners current on practices in injury prevention.

## ENVIRONMENTAL HEALTH SERVICES

### ArcView GIS Applications in Public Health (16395)

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This 3-day course provides an overview of display, editing, analysis, and presentation mapping functions of ArcView. ArcView manufacturer representative will conduct the software technical training while environmental health professionals will provide actual examples of how to apply ArcView GIS in a public health setting. Hands-on exercises will be used to enhance understanding of topics.

**Who should attend:** Individuals that analyze and present geographical data including injury prevention specialists, emergency response planners, environmental compliance staff, and community assessment personnel

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Display tabular and feature data
- Work with geo-referenced spatial data
- Associate table data to maps
- Observe public health applications

**Dates and Location(s):** April 18-20, 2006 Albuquerque, NM

### SAFE Playground Assessment Course (25650)

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This four day, interactive course is based on a curriculum developed by the National Program for Playground Safety and provides a blueprint of action steps to be taken to develop safe playgrounds. A **SAFE** certification exam is offered to the attendees on the final afternoon of the course.

**Who should attend:** Individuals responsible for designing or planning playgrounds, supervisors of playground activities, and assessor/inspectors of playgrounds or outdoor recreation facilities

**Course Length:** 4 days

**Continuing Education Units:** SAFE Playground Assessment Certification

**Objectives:**

- Learn the foundation for **SAFE** playgrounds that includes proper Supervision, Age appropriate playgrounds, proper Fall surfacing, and proper Equipment maintenance
- Receive **SAFE** Playground Certification

**Dates and Location(s):** February 6-9, 2006 Albuquerque, NM

## **FDA Food Code Hybrid Course (26050)**

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This four day Food and Drug Administration course focuses on a review of the Food Code and will be supplemented with sessions covering basic plan review of food service operations and an introduction into the investigation of a food-borne disease outbreak.

**Who should attend:** Individuals that review and inspect food service operations

**Course Length:** 4 days

**Continuing Education Units:** FDA CEUs available

**Objectives:**

- Review the current edition of the FDA Food Code
- Renew knowledge and efforts to train food service operators
- Discuss basic plan review of food service operations
- Review the steps of food-borne disease outbreak investigation

**Dates and Location(s):** April 3-6, 2006 Oklahoma City, OK

## **Certified Swimming Pool/Spa Inspectors and Operators Course (25850)**

---

This three day course is presented by a certified National Swimming Pool Foundation instructor. The students will be instructed on basic plan review, inspection, and operation of a spa or swimming pool facility. The Certified Pool Operator's exam is offered at the conclusion of the course.

**Who should attend:** Personnel responsible for conducting surveys of spa or swimming pools facilities

**Course length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Review health impacts associated with swimming pools/spa facilities
- Review swimming pool/spa design
- Review swimming pool/spa operation
- Review swimming pool/spa maintenance

**Dates and Location(s)** August 8-10, 2006 Albuquerque, NM

## **Risk Communications Course (16250)**

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This interactive course provides participants with the knowledge and tools to communicate health risks to the public, media, partners, and other stakeholders. The scenarios associated with the course include routine risk communication strategies and those associated with acute emergency situations.

**Who should attend:** Individuals that communicate scientific data or findings to an audience in an attempt to inform and/or modify a behavior or situation

**Course length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Understand barriers to effective health risk communications
- Learn health risk communication strategies
- Review risk communication strategies for difficult and crisis situations

**Dates and Location(s):**

September 26-28, 2006

Phoenix, AZ

## **Essential Public Health Services and PACE-EH (23700)**

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This three day course provides students with an overview of an assessment tool, Protocol for Assessing Community Excellence in Environmental Health (PACE EH), and familiarize students with the concept of incorporating the ten Essential Public Health Services into the operation of an environmental health program.

**Who should attend:** All environmental health staff seeking to promote community involvement in the environmental health program with the implementation of the ten Essential Public Health Services

**Course length:** 3 days

**Continuing Education Units:** 1.8

**Objectives:**

- Review strategies to establish effective environmental health programs within the public health system
- Understand the role of community involvement in program development
- Align environmental health program activities with national priorities and strategic initiatives

**Dates and Location(s):**

March 21-23, 2006

May 16-18, 2006

Rapid City, SD

San Diego, CA

## **Mid-Level Environmental Health Technical Course (20550)**

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This three day course is designed to examine current technical challenges for mid-level environmental health officers. Topics include in the areas of program development, program evaluation, and emerging issues.

**Who should attend:** IHS district and area staff environmental health officers

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Provide overview of program evaluation
- Design a general environmental health course
- Receive presentations associated with emerging issues

**Dates and Location(s):**                      March 7-9, 2006                      Phoenix, AZ

## **EHS COURSES NOT OFFERED THIS FISCAL YEAR**

### **Basic Environmental Health Practices (23500)**

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This entry-level course develops and enhances practical environmental health program skills to tribal and IHS environmental health specialists and technicians. The focus of this course is to present skills and best practices in the basic components of a comprehensive environmental health program. Course topics include: surveillance, investigation, interpretation and control procedures for a variety of environmental concerns including water, solid waste, sewage, food service, vectors, institutional health, injuries, and hazardous materials.

### **Playground Safety Inspection Certification (25600)**

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This two-day course provides in-depth instruction on playground hazard identification and risk management. Advanced reading and ten hours of training from nationally known playground safety experts will prepare the students to sit for the Certified Playground Safety Inspector examination offered at the end of the certification course.

### **FDA Food Code Train the Trainer (26000)**

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This 4-day course allows the students to become familiar with the most current edition of the Food and Drug Administration Food Code. It is also, expected that students completing the course will return to their Areas and train local/tribal sanitarians and inspectors, and retail establishments as appropriate, in the requirements of the Food Code. Trainers will receive a CD-ROM containing Food Code training materials and PowerPoint slides.

### **Hazardous Waste Operations & Emergency Response (14100)**

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This 40-hour HAZWOPER course is designed to discuss OSHA's 29 CFR 1910.120 standard. Workers exposed to hazardous substances are required to attend 40 hours of safety training. This course examines the proper health and safety procedures and personnel protection during work operations at hazardous waste sites.

### **Introduction to Epidemiology (23100)**

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This introductory course will highlight the practical applications of the principles of epidemiology and how they relate to the investigation of public health problems. It will be focused on the environmental health specialist, safety officer or infection control officer whose responsibilities include epidemiological investigations in either the community or healthcare setting. Topics include: field investigations, public health surveillance, methods of control and prevention, and evaluation. Selected diseases will be discussed to emphasize the application of epidemiological principles to infectious and non-infectious diseases.

## **Certified Pool/Spa Operators Course (25800)**

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In this two-day course, the students will receive instruction by a Certified Instructor specifically trained to communicate the basic skills necessary to operate a pool or spa facility. The course covers pool and spa chemistry, testing, treatment, filtration, maintenance, automatic feeding equipment and government requirements. The CPO examination is offered at the conclusion of the course. This certification is for a minimum of 5 years at which time a refresher course and/or an examination must be passed.

## **Basic Plan Review (25700)**

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This three-day course will provide practical information and strategies to those tasked with reviewing construction plans. Topics covered include: drawing conventions, sections, details, construction, fire rated assemblies, exit enclosures, fire rated doors, occupant loads and egress capacity. Also, travel distance, dead ends, common paths of travel, vertical openings hazardous areas, interior finishes, draperies and curtains, and fire alarm and detection. As well as sprinklers, fire extinguishers & other fire protection systems. Each student will receive a copy of the most recent version of the *NFPA Life Safety Code*.

## **Introduction to WEBEHRs: (28100)**

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This course is designed to provide training on how to effectively use the Web based Environmental Health Reporting System (WebEHRs) for documenting activities as well as planning and prioritizing work. In the course, students will learn how to add and edit facility information, add survey information, upload documents into the system for reference, add e-survey data into the system and perform basic Geographic Information System (GIS) functions. This will be a hands-on course and each student should at least have basic computer skills.

## **Sanitary Survey Course (29000)**

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This course is designed to develop the capabilities of individuals to conduct an effective and comprehensive review of public water systems. The training teaches inspectors to apply basic scientific information and a working knowledge of the operation, maintenance, management, and technology of a water system to identify sanitary risks that may interrupt the multiple barriers of protection at a water system.

## **Basic Water Skills Course (29500)**

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This course is designed to expose environmental health staff to a wide range of concepts and technical information related to drinking water. Course topics will include discussions of drinking water contaminants, the Safe Drinking Water Act, water disinfection and fluoridation, water sampling and testing, cross contamination issues, and water related emergencies.

## **Managing Retail Food Safety FD201 (26500)**

### **Applying HACCP Principles to the Inspection of Retail and Food Service Establishments**

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This course is designed to allow participants an opportunity to explore the various ways that risk-based inspections can be applied in retail and food service establishments. Topics will include the "process approach" to HACCP, applications of HACCP principles in routine inspection work, and assessing active managerial control of risk factors by operators through a HACCP system or other established food safety systems. While the process approach is new to many regulators, it is better designed for use in retail and food service settings than traditional HACCP approaches because it eliminates lengthy flow charting and hazard analysis for every type of food product.

## **Crisis and Emergency Risk Communication Course (16200)**

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This is a fast-paced, interactive course that gives participants essential knowledge and tools to navigate the harsh realities of communicating to the public, media, partners and stakeholders during an intense public health emergency, including terrorism.

## **Diagnosing Indoor Air Quality (19000)**

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This course is an introduction to air quality concepts. It includes the identification of hazards, evaluation techniques and sampling methods. Students will learn what impact building dynamics plays on the indoor air quality. They will also have the opportunity for "hands-on" exercises to measure and assess volatile organic compounds (VOCs), bio-aerosols, and other hazardous indoor air contaminants, including carbon monoxide and radon. Topics will be discussed from a routine institutional standpoint, as well as in emergency settings.

## **Advanced Epidemiology (23200)**

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This course will build on the skills learned in the Introduction to Epidemiology course and provide a more in-depth discussion on the practical applications and of the principles of epidemiology and how they relate to the investigation of public health problems. It will be focused on the environmental health specialist, safety officer or infection control officer whose responsibilities include epidemiological investigations in either the community or healthcare setting.

## **Environmental Health Technical Training (20500)**

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A course designed to examine current technical challenges for mid-level environmental health personnel. Topics will include the areas of program management, 10 Essential Services of Public Health, and career development.



# INSTITUTIONAL ENVIRONMENTAL HEALTH

## Basic Course for Safety Officers (26100)

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This four and one-half day introductory course is designed for new safety officers primarily in healthcare facilities. Through a series of lectures and hands-on exercises, students will learn the required components of a comprehensive healthcare Occupational Safety and Health program described in Chapter 9 of the Indian Health Manual.

**Who should attend:** Full time or collateral duty Safety Officers in the ambulatory care or hospital setting. Quality Managers may also benefit from this course.

**Course Length:** 4½ days

**Continuing Education Units:** 3.0

### Objectives:

- Obtain 10-Hour OSHA Certification
- Learn all basic aspects of a comprehensive healthcare occupational safety and health program
- Become familiar with the requirements of regulatory and accreditation bodies such as OSHA, JCAHO, and the National Fire Protection Association (NFPA)
- Become familiar with Chapter 9, *Managing Occupational Safety and Health Programs*, of the Indian Health Manual

**Dates and Location(s):** November 14-18, 2005 Minneapolis, MN

## Intermediate Course for Safety Officers (26150)

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This four and one-half day course is designed as a bridge between the Basic and Advanced Courses for Safety Officers. The course will focus on the management, regulatory, and accreditation aspects of occupational safety and health programs. Topics will include, but not necessarily be limited to, Building a Culture of Safety, JCAHO Management Plans, Emergency Management and Preparedness in Healthcare, Outcome Assessment and Measurements of Safety Programs, and Workplace Violence Prevention.

**Who should attend:** Full time or collateral duty Safety Officers in the ambulatory care or hospital setting. Quality Managers may also benefit from this course.

**Course Length:** 4½ days

**Continuing Education Units:** 3.0

### Objectives:

- Prepare attendees for the hands-on Advanced Course for Safety Officers.
- Provide a complete overview of all aspects of managing an occupational safety and health program.
- Assist in the standardization of occupational safety and health programs across the agency.

**Dates and Location(s):** February 20-24, 2006 Albuquerque, NM

## **Advanced Course for Safety Officers (26200)**

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This 4½-day course is designed to build on and enhance the knowledge base from the Basic Course for Safety Officers. The course is held at a location that allows extensive “in facility” experience in applying the concepts and techniques learned during the course. Morning sessions are held in the classroom setting with afternoon sessions spent in the hospital applying knowledge gained from lectures.

**Prerequisite:** Basic Course for Safety Officers or extensive training and experience in managing an occupational safety and health program in the healthcare setting.

**Who should attend:** Full time or collateral duty Safety Officers in the ambulatory care or hospital setting.

**Course Length:** 4½ days

**Continuing Education Units:** 3.0

### **Objectives:**

- Learn all aspects of a comprehensive occupational safety and health program
- Become familiar with OSHA requirements specific to the healthcare industry including the Bloodborne Pathogens Standard and the Needlestick Safety and Prevention Act
- Apply skills and knowledge gained from classroom lectures

**Dates and Location(s):**

June 19-23, 2006

Phoenix, AZ

## **Basic Course for Infection Control Practitioners (23600)**

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This 3-day introductory course is designed for new infection control practitioners in small hospitals and ambulatory care settings. Students will obtain an overview of basic infection control measures, epidemiology principles, concepts, and procedures generally used in the surveillance and investigation of nosocomial infections and employee health issues.

**Who should attend:** Full time or collateral duty Infection Control Officers in the ambulatory care or small hospital setting.

**Course Length:** 3 days

**Continuing Education Units:** 2.5

### **Objectives:**

- Learn all basic aspects of a comprehensive healthcare infection control program.
- Become familiar with isolation techniques.
- Become familiar with the collection, aggregation, and analysis of data including rate calculations.

**Dates and Location(s):**

September 26-28, 2006

Gallup, NM

## **10 Hour OSHA Course for the Construction Industry (38500)**

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This course is for engineering, inspection and construction personnel working under the OSHA construction standards. Topics include an introduction to the Occupational Safety and Health Act, the "General Duty Clause", OSHA recordkeeping requirements, electrical safety, fall protection, personal protective equipment, hand and power tools, excavation, walking and working surfaces, stairways and ladders.

**Who should attend:** IHS or Tribal engineers, technicians, inspectors, and project managers.

**Course Length:** 1.5 days

**Continuing Education Units:** 1.0

**Objectives:**

- Obtain the 10 Hour OSHA Card for the Construction Industry.
- Understand the need for construction safety.
- Review OSHA construction safety standards.
- Understand the elements of a confined space entry permit program.
- Understand the OSHA trenching and shoring requirements

**Dates and Location(s):**

October 27-28, 2005  
March 8-9, 2006

Oklahoma City, OK  
Phoenix, AZ

## **Comprehensive Housekeeping Course (49400)**

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This five-day course divides students into two tracks. Students in Track 1 will have hands-on training using the procedures for cleaning patient rooms, operating rooms, emergency rooms, and labor and delivery rooms. Additional training will be provided in proper floor care. Students in Track II will receive training on staffing, cleaning schedules and frequencies, budgets, and hands-on management training for floor care. In addition, hands-on training on the use of the quality improvement audit tools (provided with the Procedure and Training Manual) will be presented in order that participants will be able to return to their facilities and immediately start to use them.

**Who should attend:** This course is designed for housekeepers, work leaders and supervisors of all levels of training and experience.

**Course Length:** 5 days

**Continuing Education Units:** 4.0

**Objectives:**

- Gain a thorough knowledge of all basic housekeeping procedures
- Learn how to read and understand a Material Safety Data Sheet (MSDS)
- Learn housekeeping management practices to best utilize staff and equipment available
- Become familiar with the IHS Housekeeping Procedure and Training Manual
- Review infection control material pertinent to the Housekeeping department

**Dates and Location(s):**

October 24-28, 2005  
February 20-24, 2006  
May 22-26, 2006  
September 11-15, 2006

Tahlequah, OK  
Phoenix, AZ  
Santa Fe, NM  
Gallup, NM

## Professional Training Techniques (10800)

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This course teaches the skills necessary for developing and presenting effective, motivating, and enjoyable professional training sessions. Students will learn how to manage learning in the classroom, stimulate participation of attendees, energize their training styles, understand the adult learning process, and become more flexible in their information delivery.

**Who should attend:** This course is open to anyone who is charged with developing and presenting professional training sessions. Environmental Health Officers, Environmental Health Technicians, Engineers, and all other disciplines that are required to teach, train, or give public presentations are encouraged to attend.

**Course length:** 3 days

**Continuing Education Units:** 1.8

### Objectives:

- Learn to develop and present more effective professional training sessions.
- Gain an understanding of the needs of the adult learner.
- Learn to motivate and manage learning in the classroom.
- Learn to prepare more effective visual aids.
- Gain experience in the public speaking field.

### Dates and Location(s):

June 13-15, 2006  
July 25-27, 2006

Billings, MT  
Albuquerque, NM

## Life Safety Code (NFPA 101) (41500)

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This three-day course covers the fundamental chapters (Chapters 1-11) of the National Fire Protection Association Life Safety Code (NFPA 101, 2003 Edition), plus the chapters for new and existing Healthcare Occupancies (Chapters 18 & 19) and existing Business occupancies (Chapters 38 & 39). Students will gain a working knowledge of the code organization and the philosophy behind the code provisions. The course includes instructor-led presentations and student exercises where groups will use the code to find answers to life safety problems.

**Who should attend:** Safety Officers, Facilities Managers, Facilities Engineers in the ambulatory care or hospital setting, as well as Environmental Health Officers and Environmental Health Technicians responsible for surveying facilities such as schools and Head Start buildings.

**Course Length:** 3 days

**Continuing Education Units:** 2.4

### Objectives:

- Gain a thorough understanding of the Life Safety Code (NFPA 101) with particular emphasis on the core chapters (1-11), the Healthcare Occupancy chapters (18 and 19), and the Business Occupancy chapters (38 and 39)
- Acquire the ability to apply the knowledge gained at the student's facility in order to insure compliance with the Life Safety Code requirements
- Gain the knowledge required to insure a fire-safe environment at the student's facility

### Dates and Location(s):

July 17-19, 2006

Las Vegas, NV

## Healthcare Facilities NFPA 99 (42600)

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This two-day program is for building inspectors, facilities managers, facility engineers, safety inspectors, code enforcers, engineers, architects, building owners, and biomedical technicians. The course addresses specific technical requirements of medical gas and vacuum systems, essential electrical systems, and emergency preparedness within healthcare facilities. Also covered are laboratory requirements in healthcare occupancies. The course addresses requirements for new construction as well as upgrade and modernization of existing healthcare facility systems.

**Who should attend:** Building inspectors, facilities managers, facility engineers, safety inspectors, code enforcers, engineers, architects, building owners, and biomedical technicians.

**Course Length:** 2 days

**Continuing Education Units:** 1.5

**Objectives:**

- Gain a thorough understanding of the NFPA 99 Manual
- Acquire the ability to apply the knowledge gained at the student's facility in order to insure compliance with NFPA requirements.

**Dates and Location(s):**

July 20-21, 2006

Las Vegas, NV

## JCAHO/NFPA 99: (42500)

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This course covers the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Environment of Care Standards and reviews National Fire Protection Association (NFPA) 99, Standards for Health Care Facilities. The requirements for compliance with the design, installation and maintenance of electrical emergency power and medical gas systems are provided. The student will gain a working knowledge of the standard organization and the philosophy behind the code provisions. This course will "walk" through the standard using examples where appropriate to illustrate the provisions. The students will be taught how to find provisions in the standard and have an understanding to apply those requirements.

**Who should attend:** Full time or collateral duty Safety Officers or Facilities Managers in the ambulatory care or hospital setting. Risk Managers and Quality Assurance Managers and others responsible for JCAHO accreditation activities may also benefit from this training.

**Course Length:** 3 days.

**Continuing Education Units:** 2.0

**Objectives:**

- Gain a thorough understanding of the JCAHO Environment of Care Standards
- Learn to develop Environment of Care Management Plans
- Learn to aggregate and evaluate data for Environment of Care Performance Standards
- Gain a thorough understanding of NFPA 99, Standards for Health Care Facilities
- Acquire the ability to apply the knowledge gained at the student's facility in order to ensure compliance with the NFPA 99 requirements

**Dates and Location(s):**

February 14-16, 2006

Tucson, AZ

## **NFPA/JCAHO/OSHA for Healthcare Facilities (43100)**

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This course combines condensed versions of the National Fire Protection Association Life Safety Code (2003 edition), the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Environment of Care standards, and the Occupational Safety and Health Administration (OSHA) standards applicable to healthcare facilities. Nationally recognized experts teach the NFPA and JCAHO sections of this course, while Institutional Environmental Health Officers from the Indian Health Service (IHS) teach the OSHA portion.

**Who should attend:** Facilities Managers and Safety Officers with all levels of experience and training. Risk Managers, Quality Assurance Managers, and those responsible for healthcare accreditation will also benefit from this training.

**Course Length:** 4.5 days

**Continuing Education Units:** 4

### **Objectives:**

- Gain a thorough understanding of the JCAHO Environment of Care Standards including the latest changes and requirements
- Gain a working knowledge and understanding of the Life Safety Code with particular emphasis placed upon healthcare and business occupancies
- Become familiar with OSHA Standards applicable to the healthcare setting

**Dates and Location(s):**

December 5-9, 2005

Anchorage, AK

## **Implementing Environmental Management Systems (23700)**

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This is a course designed specifically for Environmental Management System (EMS) teams at IHS pilot project sites. The course will be a mixture of didactic presentations and interactive group sessions for policy development and implementation planning. The course will focus on learning the details for developing and implementing an EMS. EMS reference materials will be reviewed in detail and recommendations made on the best use of these materials. Results from an EMS gap analysis will be used to identify and prioritize environmental aspects and environmental impacts and the training facility. Site specific EMS implementation plans will be drafted using workgroups and discussion sessions.

**Who should attend:** Service Unit Directors, Administrative officers, Facility managers, Safety Officers, Compliance Officers, Procurement staff, Facilities Maintenance staff, House keepers, Healthcare Providers

**Course Length:** 3 days

**Continuing Education Units:** 2.4

### **Objectives:**

- Provide in-depth orientation to EMS and their implementation
- Review EMS reference materials and discuss their best use
- Review and discuss the results of a gap analysis conducted at the training facility
- Define and identify environmental aspects and environmental impacts at the training facility
- Develop implementation plans for a site specific EMS

**Dates and Location(s):**

October 4-6, 2005

Tucson, AZ

October 24-27, 2005

Tahlequah, OK

## **IEH COURSES NOT OFFERED THIS FISCAL YEAR**

### **Introduction to Institutional Environmental Health (20010)**

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Introduction designed to enhance skills and increase knowledge for addressing institutional environmental health concerns is provided in this course. Topical lessons include the institutional environment (medical, childcare and correctional facilities), infection control, safety management, industrial hygiene, medical waste management, and survey concerns.

### **OSHA 10-Hour Course for General Industry (27000)**

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The purpose of this OSHA 10-Hour Course is to provide an in-depth discussion on the issues that OSHA feels are important to providing a safe environment and the tools required to complete a Safety and Health Program. This course is geared to healthcare and will focus on areas that are unique to that setting. Course participants will complete the OSHA 10-Hour Course for General Industry with a heavy emphasis being devoted to areas that directly affect healthcare workers. In addition, they will learn how to design and implement a comprehensive healthcare safety and health program. Each participant will receive a current edition of the Occupational Safety and Health Standards for General Industry, an OSHA course completion card and a certificate of completion suitable for framing.

### **OSHA Construction Safety & Competent Trench (38700)**

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This course is targeted for engineering, inspection and construction personnel providing the OSHA 10-hour training course on construction standards. A required OSHA course for individuals designated as the “competent person” who oversees trenching or excavations. The course centers on the OSHA statute for trench and excavation safety.

### **IHS Ergonomics: Optimizing Employees’ Workstations (27100)**

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This course provides a practical approach to Ergonomics: “Fitting the Task to the Worker” in the IHS setting. The students will explore successful interventions; learn to employ tools that will enable them to implement relatively simple and inexpensive interventions to prevent the occurrence of musculoskeletal disorders caused by poor ergonomic practices.

### **Emergency Management Planning and Preparedness: (14900)**

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This course will provide an overview of emergency management activities at all levels of the Indian Health Service. Students will gain knowledge of the National Disaster Medical System (NDMS), the Incident Command System (ICS), and the National Incident Management System (NIMS). At the heart of this course is the Hospital Emergency Incident Command System (HEICS). HEICS is a command and control system for managing disasters that is based on the Incident Command System used in fire, police, and emergency medical service departments, but adapted for use in a healthcare setting. The course will include an orientation, exercises, and suggestions on an implementation plan. The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) now requires a “common command structure within the organization for responding to and recovery from emergencies, which links with the command structure in the community” (Environment of Care Standard EC.1.4).

## **Industrial Hygiene Equipment and Survey Techniques (23050)**

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This two-day course is designed as an introduction to industrial hygiene instrumentation and survey methodologies. It will also serve as a refresher for employees who have experience in the industrial hygiene field, but have not practiced in some time.

## **Advanced Radiation Protection Surveyor Course (19600)**

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This three-day course is designed to teach survey methodologies for computed tomography (CT), magnetic resonance imaging (MRI), and panoramic dental x-ray units. Additional subjects include acceptance testing and annual compliance testing of computed radiography readers, as well as shielding calculations and plan review training for diagnostic imaging installations.

## **Healthcare Safety Accreditation (43000)**

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This three-day course is an overview of what Facilities Managers and Safety Officers need to know to fully comply with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Environment of Care standards, Center for Medicare/Medicaid Services (CMS) Physical Environment standards, and Accreditation Association for Ambulatory Health Care (AAAHC) Facilities and Environment standards. Students will receive information on survey types and methodologies for each of the accrediting bodies. A representative from CMS teaches the CMS portion of the course. Participants will receive the latest version of the JCAHO *Environment of Care Essentials Manual* in addition to a student handbook filled with lecture notes and valuable reference materials. Hands-on activities in developing a Hazard Vulnerability Analysis and in Establishing/Measuring Performance Standards augment the classroom sessions.

## **Nuclear, Biological, and Chemical Patient Decontamination (16700)**

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This three-day course is designed to teach healthcare providers, safety officers, security officers, environmental health officers, and facilities managers the essentials of decontaminating patients, visitors, and staff who have been exposed to nuclear, chemical, or biological agents. Emphasis will be placed on decontamination procedures; personal protective equipment (PPE); the establishment of hot, warm, and cold zones; and environmental protection.

This is a hands-on course where students will be required to wear personal protective equipment and participate in the simulated decontamination of contaminated patients.

The first day of the course is an overview of the healthcare aspects of exposure to weapons of mass destruction, while days two and three comprise the decontamination training. Class size is limited to 25 students.



## **Healthcare Security Management (19100)**

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This five-day course is designed for security officers working at IHS or tribal healthcare facilities. A series of modules including an introduction to healthcare security, crisis intervention, professional conduct and self-development, report preparation and writing, and many others will be covered. Students who successfully complete this course will be eligible to sit for the Basic Healthcare Security Officer Certification examination.

# ENGINEERING AND CONSTRUCTION

## Basic Surveying Course (31500)

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This course is designed to teach basic surveying principles and skills needed by IHS engineers and construction personnel. The course includes classroom instruction combined with field application of land surveying techniques. Lessons include leveling, traversing, topographic surveying and grade staking.

**Who should attend:** IHS or Tribal technicians, inspectors, and project managers.

**Course Length:** 5 days

**Continuing Education Units:** 4.0

**Objectives:**

- Learn the basics of land descriptions
- Perform level loops, topographic surveys, and traverses
- Perform construction staking for utility lines and earthwork construction

**Dates and Location(s):** September 18-22, 2006 Albuquerque, NM

## Electronic Surveying/Computer Design (32001)

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A hands-on course designed to teach the use of electronic survey instruments and data collectors, and the interfacing of survey data with computer aided design and drafting. Participants will generate survey data from field exercises and use this to create a project.

**Who should attend:** IHS or Tribal technicians, inspectors, and project managers

**Course Length:** 5 days

**Continuing Education Units:** 4.0

**Objectives:**

- Learn to use electronic surveying equipment and data collectors
- Perform field surveys for topography and design
- Perform stake out surveys from an existing CAD design

**Dates and Location(s):** September 25-29, 2006 Albuquerque, NM

## **Introduction to GPS Surveying (36000)**

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This is an introductory course into various field-surveying techniques that utilize survey grade Global Positioning System technology. Students learn "fast static" and "real time kinematics (RTK)" surveying techniques to collect field data for use in design of water and wastewater systems. Sessions also include post processing of data, transformation of coordinate data to preferred reference systems, and stakeout routines for construction staking.

**Who should attend:** IHS or Tribal technicians, inspectors, and project managers

**Course Length:** 2.5 days

**Continuing Education Units:** 1.5

**Objectives:**

- Provide basic instruction on geodetic surveying
- Perform basic surveys using multiple receivers and data collectors
- Perform kinematic surveys for data collection and stake-outs

<b>Dates and Location(s):</b>	October 24-26, 2005	Gallup, NM
	October 26-28, 2005	Gallup, NM

## **Advanced AutoCAD Land Development (37500)**

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This course is intended for experienced users of the Land Development application. This course provides an in-depth look at the 3-D functions of the design package and covers advanced terrain modeling and calculations.

**Who should attend:** IHS or Tribal engineers and project managers

**Course Length:** 4 days

**Continuing Education Units:** 3.2

**Objectives:**

- Prepare designs of 3D earthen structures using 3D polylines
- Learn to use advanced drawing techniques
- Incorporate AutoCAD Map into Land Development projects

<b>Dates and Location(s):</b>	April 4-7, 2006	Albuquerque, NM
	April 18-21, 2006	Albuquerque, NM

## **AutoCAD Map (35000)**

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This 3-day, instructor-led course is based on Autodesk Map 3D and is intended for new users or experienced users needing more in-depth training on Autodesk Map. On days 1 & 2, students will learn the value of 3D capabilities. Day 3 focuses on points and surfaces, surface analysis, plotting & topology enhancements.

**Who should attend:** IHS and Tribal engineers and project managers

**Course Length:** 3 days

**Continuing Education Units:** 3

**Objectives:**

- Display tabular and feature data
- Work with georeferenced spatial data
- Query features using logical expressions
- Associate table data to maps

**Dates and Location(s):** April 11-13, 2006 Albuquerque, NM

## **Onsite Wastewater Treatment (30500)**

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Staff involved with the evaluation of soil and site conditions for wastewater, designing, or managing systems benefit greatly from this four-day course. Students learn to conduct site evaluations by working with actual soil samples, watch soil move through plastic models, and design multiples types of systems.

**Who should attend:** IHS or Tribal engineers, technicians, inspectors, project managers, EH personnel

**Course Length:** 4 days

**Continuing Education Units:** 2.4

**Objectives:**

- Identify soil types, structure, texture, and color
- Learn the elements of a site survey for on-site waste disposal
- Design on-site wastewater treatment based on soil site survey

**Dates and Location(s):** March 13-16, 2006 Albuquerque, NM

## **10 Hour OSHA Course for the Construction Industry (38500)**

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This course is designed for engineering, inspection and construction personnel working under the OSHA construction standards. Topics include an introduction to the Occupational Safety and Health Act, the "General Duty Clause", OSHA recordkeeping requirements, electrical safety, fall protection, personal protective equipment, hand and power tools, excavation, walking and working surfaces, stairways and ladders.

**Who should attend:** IHS or Tribal engineers, technicians, inspectors, and project managers.

**Course Length:** 1.5 days

**Continuing Education Units:** 1.0

**Objectives:**

- Obtain the 10 Hour OSHA Card for the Construction Industry.
- Understand the need for construction safety.
- Review OSHA construction safety standards.
- Understand the elements of a confined space entry permit program.
- Understand the OSHA trenching and shoring requirements

**Dates and Location(s):**

October 27-28, 2005  
March 8-9, 2006

Oklahoma City, OK  
Phoenix, AZ

## **NEPA (16000)**

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A workshop to bring NEPA coordinators and project managers up to date on the latest NEPA rules and regulations. We will discuss the Agency's methods for NEPA review and any exclusions that apply. A discussion is planned on NEPA coordination with other Agencies (EPA, USDA, HUD).

**Who should attend:** IHS or Tribal engineers and project managers

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Manage the NEPA process to comply with the intent of the law
- Implement CEQ regulations and agency requirements
- Review and write EAs, FONSI, EISs, RODs, that comply with NEPA and agency guidelines

**Dates and Location(s):**

May 2-4, 2006

Denver, CO

## **ENGINEERING & CONSTRUCTION COURSES NOT OFFERED THIS FISCAL YEAR**

### **Construction Inspection (34100)**

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This course examines the appropriate role of the inspector in utility construction activities typical to IHS and tribal sanitation programs. Technical and administrative aspects of construction inspection will be covered such as record keeping, quality assurance, timeliness, and OSHA safety and liability.

### **Landfill Closure Transfer Station Design (13600)**

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This course will provide tribal and IHS personnel with the knowledge and skills to prepare a closure plan for small landfills that will meet the requirements of current federal regulations. In addition, students will examine various design options and requirements for transfer stations and remote collection sites typically constructed as part of a rural solid waste collection system.

### **Microsoft Project (36500)**

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This course provides an introduction to Microsoft Project, a computer based project management system. Topics covered will include time management, customization of GANTT and PERT charts, tracking and reports. Students will also learn how to make and utilize macros, combine and consolidate projects and to create custom forms and reports. Examples from IHS construction activities will be utilized.

### **Pumps and Controls for Engineers (30000)**

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This 1-week course is divided into two separate topics: pumps and electrical controls. The pump portion covers hydraulics of pumped systems, pump drives, pump types, pump selection and specifications, and pump performance data. The electrical controls portion covers basics of motor controls, electrical safety, electric motors, troubleshooting, and designing motor controls.

### **Advanced GPS Surveying (38200)**

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A course that examines advanced GPS surveying techniques. The course centers on the use of Trimble's Geometrics Office software and post processing data. The course examines the use of CORS stations, coordinate systems, and other data sources.

### **AutoCAD Land Development (34500)**

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This course was formally known as Basic SoftDesk. An introduction to the surveying data reduction and design software developed by SoftDesk utilizing the AutoCAD computer aided drafting package. The training includes examples applications in surveying, easement preparation, and earthen design typical of Indian Health Service construction activities.

### **Advanced AutoCAD (32500)**

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This is an advanced course for engineers and technicians with a working knowledge of AutoCAD. The AutoCAD elements of the course include drawing and file management, paper space, LISP routines, and advanced drawing techniques. A working knowledge of basic AutoCAD is needed for this course.

### **Ground Water and Well Drilling (33500)**

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This course introduces students to ground water hydrology and the methods of constructing domestic water wells. The course combines extensive classroom lecture with field demonstrations. Field demonstrations include well drilling by air and mud techniques, casing and screen setting, well development, test pumping, and geophysical well logging.

### **Construction Safety Program Development (38400)**

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A course designed to aid in the development of a construction safety program specific to each Area. The course centers on compliance with existing OSHA requirements, but also looks at program implementation.

### **Wastewater Pumping (30510)**

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This course provides sound design techniques for better operation and maintenance of lift stations, force mains, and pressure sewers. The University of Wisconsin teaches this course.

### **Leadership Development for the Engineer (35400)**

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This course develops leadership skills, teaches you how to lead an organization or department, and apply a leadership style appropriate for the situation.

### **Programmable Logic Controllers (30100)**

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An introductory course to programmable logic controllers (PLC) that looks at the advantages of PLC controls over relay based. The course covers PLC programming, ladder logic, and troubleshooting. The course is intended for engineers considering PLC controls and operators with PLC systems.

### **Community, Land Use and Infrastructure Planning (39100)**

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A course designed to aid project managers, engineers and planners with the problems associated with land use planning and incorporating water, sewer, and other utilities. The course looks at the special problems faced with planning on Indian lands.

### **Mid-Level Technical Training (Engineers) (30100)**

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A course designed to examine current technical challenges for midlevel engineers. Topics included in the areas of project management, water quality design, and construction.

### **Water Quality and Arsenic (30200)**

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This is a design course for engineers that centers on the removal of arsenic from drinking water. Current treatment technologies will be reviewed in this course. The quality of existing sources and their effect on treatment will be discussed.

### **Project Management (PMI) (36600)**

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A course for engineers that introduces the basic ideas and concepts of project management and provides a road map for PMI certification.



## UTILITY OPERATION AND MAINTENANCE

### Electrical Controls for Utility Operators (50500)

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This course provides operational knowledge of basic electrical concepts and exposure to common electrical components used in water and sewer utility control systems. In this popular course, operators learn to use electrical meters and apply elementary trouble shooting techniques while constructing and testing actual pump control panels. This course relies heavily on hands-on activities and classroom participation.

**Who should attend:** Tribal Utility managers and operators

**Course Length:** 3 days

**Continuing Education Units:** 1.8

**Objectives:**

- Learn the basics of electricity and electrical control components
- Learn to use a multi meter
- Build working electrical panels
- Learn basic troubleshooting

**Date and Location:** April 4-6, 2006 Spokane, WA

### Cross Connection Control (55000)

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The public health significance of cross connections in water utility systems will be covered. Fundamentals covered in this course; types and causes of backflow, types of backflow prevention assemblies, and their applications. Students will learn the requirements of backflow prevention associated with varying degrees of hazard. Standards and administrative requirements for a utility cross connection control program will be discussed in detail.

**Who should attend:** IHS or Tribal engineers and project managers, and EH staff

**Course Length:** 3 days

**Continuing Education Units:** 1.8

**Objectives:**

- Review the elements of a cross connection control program
- Learn to identify backflow prevention devices
- Learn backflow device testing

**Date and Location:** April 4-5, 2006 Ft. Defiance, AZ

## **Pumps and Pumping System, Operation & Repair (56000)**

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Designed as the follow-up course to "Electrical Controls for Utility Operators", this three-day course provides hands-on training in pumps and pumping system operation and repair. Student exercises reinforce and build skills in pump components and trouble-shooting techniques using actual pumping equipment for disassembly and demonstration purposes. Inclusion of electrical control panels builds on elements of previous courses to allow troubleshooting exercises using complete, operational water pumping systems.

**Who should attend:** Tribal Utility managers and operators

**Course Length:** 3 days

**Continuing Education Units:** 1.8

### **Objectives:**

- Learn the basics of pumps
- Review water system hydraulics
- Learn basic water system troubleshooting

### **Date and Location:**

April 4-6, 2006  
May 16-18, 2006  
May 23-25, 2006

King Salmon, AK  
Durango, CO  
Bethel, AK

## **Water Distribution System Field Operations I (54000)**

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This hands-on course teaches operators repair techniques and operating characteristics of common water and sewer equipment including valves, hydrants, piping, and pressure regulators. By working on actual utility equipment, operators are provided the skills to perform maintenance and repairs in an efficient, cost-effective manner.

**Who should attend:** Tribal Utility managers and operators

**Course Length:** 3 days

**Continuing Education Units:** 1.8

### **Objectives:**

- Learn to identify the basic components of a water distribution system
- Apply classroom lectures to hands-on exercises
- Perform water system taps, valve assembly & repair

### **Dates and Location(s):**

October 18-20, 2005  
November 1-3, 2005

Barrow, AK  
Port Angeles, WA

## Lift Station Operations (56100)

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This interactive and hands-on training course is for operators, wastewater managers, and engineering staff interested in an overview of lift station operations and troubleshooting. Course will review pumps, piping, mechanical equipment, and electrical components commonly used in lift stations and provide an opportunity for attendees to work with this equipment during classroom exercises. Common hydraulic problems are discussed and demonstrated including the effects of velocity, water hammer, and entrapped air. Operating problems related to debris, grease, and odor control are examined. Other topics include safety, emergency response, and code compliance. Record keeping is discussed as an aid to maintaining system reliability and reducing operational cost. Student involvement will be maximized using demonstrations and exercises.

**Who should attend:** Wastewater system operators, utility managers, and engineers looking for operational background and troubleshooting information on lift stations

**Course Length:** 3 days

**Continuing Education Units:** 2.4

### Objectives:

- Provide an overview of the lift station types and equipment
- Examine basic hydraulic considerations in lift station operation
- Review control systems and types
- Examine pump troubleshooting techniques
- Provide an overview of piping and valve considerations
- Discuss common operational problems and troubleshooting
- Provide an overview of applicable codes and safety compliance
- Discuss record keeping as an aid to system maintenance and reliability
- Review emergency procedures
- Discuss operational cost control

### Dates and Location(s):

November 15-17, 2005

May 9-11, 2006

June 6-8, 2006

July 11-13, 2006

Billings, MT

Sitka, AK

Albuquerque, NM

Eureka, CA

## **Water Disinfection and Fluoridation for Small Water Systems (51000)**

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This training course provides maintenance personnel with the necessary skills and knowledge to effectively disinfect and fluoridate small community water supplies. Lessons include an overview of EPA regulations, chemical safety, and introduction to treatment processes, field analysis, and dosage calculations. Hands-on exercises will emphasize maintenance and troubleshooting of chemical feed pumps.

**Who should attend:** Tribal Utility managers and operators

**Course Length:** 3 days

**Continuing Education Units:** 1.8

**Objectives:**

- Understand the basics of Fluoridation and Disinfection
- Learn to identify chemical feed pump components
- Perform chemical dosage calculations
- Perform field tests for Fluoride and Chlorine
- Learn basic troubleshooting of chemical feed pumps

**Dates and Location(s):**

November 1-3, 2005  
December 13-15, 2005  
February 7-9, 2006  
April 25-27, 2006

Anchorage, AK  
Fairbanks, AK  
Sioux Falls, SD  
Phoenix, AZ

## **O & M COURSES NOT OFFERED THIS FISCAL YEAR**

### **Gas Chlorination Systems (51100)**

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The special safety and operating techniques used in handling and injecting chlorine gas are examined in this new course. The requirements of OSHA, EPA, and DOT are covered to provide operators an insight to the regulations of using chlorine gas.

### **Operation & Maintenance for Decision-Makers (57000)**

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This course provides an overview of the reasons for establishing a well-defined water, sewer and solid waste operational framework. This course explores the possible structural options and components of an effectively operating tribal utility maintenance organization. This course is designed for tribal council members, administrators, and other tribal management personnel.

### **Tribal Utility Management (51500)**

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A course intended for first line supervisors of utility system workers and personnel. Elements of supervision, motivation, and conflict management are provided from a cultural and realistic viewpoint. Goals include developing management skills for supervisors of tribal utility laborers subject to frequent job turnover rates as well as developing understanding of labor laws and requirements. Problem solving techniques and student interactions are emphasized.

### **Solid Waste Landfill Operations (13500)**

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This course is the Solid Waste Association of North America (SWANA) Manager of Landfill Operations (MOLO) seminar. Recent laws and regulatory changes are used as the basis for explaining the solid waste compliance activities faced by tribes and tribal operators. Guidance is provided on the Resource Conservation and Recovery Act (RCRA), the Indian Lands Open Dumps Cleanup Act, and the development of solid waste management plans and landfill operations specific to tribal systems.

### **Solid Waste Open Dump Assessments (16500)**

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This course discusses considerations in designing an open dump assessment program. Developed in conjunction with the University of Wisconsin, students will be provided an overview of the steps to assessing the content and potential threat to health and the environment posed by an open dump. Examples of assessment programs will be provided.

### **Solid Waste Planning (13600)**

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This course discusses considerations in designing a solid waste management system from collection to disposal for Native American communities.

# FACILITIES MANAGEMENT AND ENGINEERING

## NEPA (16000)

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A workshop to bring NEPA coordinators and project managers up to date on the latest NEPA rules and regulations. We will discuss the Agency's methods for NEPA review and any exclusions that apply. A discussion is planned on NEPA coordination with other Agencies (EPA, USDA, HUD).

**Who should attend:** IHS or Tribal engineers and project managers

**Course Length:** 3 days

**Continuing Education Units:** Not available

**Objectives:**

- Manage the NEPA process to comply with the intent of the law
- Implement CEQ regulations and agency requirements
- Review and write EAs, FONSI, EISs, RODs, that comply with NEPA and agency guidelines

**Dates and Location(s):**

May 2-4, 2006

Denver, CO

## Facilities Mid-Level Management (40100)

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**New**

This training is targeted for mid-level engineers without health care facilities administrative experience and for experienced facility managers with an interest in the administrative aspects of the FM program. The course covers advanced program elements needed to understand the role of Facilities directors, IHS organization, office administration, personnel management, procurement and contracting, service contracts, financial management, energy management, FEDS, work management, and credentials.

**Who should attend:** Facility engineers, facility managers, staff engineers

**Course Length:** 3 days

**Continuing Education Units:** 1.8

**Objectives:**

- Provide an overview of the IHS organization, office administration, personnel management, and tribal relationships
- Explain the various procurement methods, and explain how to choose the procurement method suited for a given project
- IHS data systems as related to facilities management
- Discuss financial management and common pitfalls
- Provide an introduction to work management processes commonly in use
- Overview of health care facility related codes and ordinances
- Raise awareness of energy management issues
- Provide an overview of emergency response related to health care facilities

**Dates and Location(s):**

March 14-16, 2006

Albuquerque, NM

## **MP2 Management System (48000)**

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This course covers the use of the MP2 software system for the day-to-day preventative maintenance and upkeep of healthcare facilities. It will provide an explanation of the importance of efficient work order procedures to effectively maintain health care facilities. Also provided will be step by step instructions on proper methods of work order utilization and follow up to ensure maintenance is being performed effectively and efficiently.

**Who should attend:** Maintenance personnel, electrician & plumber technicians, maintenance supervisors, foremen, and facility managers.

**Course Length:** 3 days

**Continuing Education Units:** Not Available

**Objectives:**

- Understand the MP2 management system
- Understand your role and responsibility under the MP2 system

**Dates and Location(s):** December 6-7, 2005 Gallup, NM

## **National Electrical Code 2005 (46000)**

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This course covers the requirements for compliance with the National Electrical Code (NEC) in new and existing buildings. The code changes every three years so it is mandatory that employees stay abreast of the changes.

**Who should attend:** Facilities engineers and managers, electricians, and safety officers.

**Course Length:** 3 days

**Continuing Education Units:** 1.8

**Course Length:**

- Provide a basic understanding of the NEC
- Update your knowledge on the new changes in the code
- Learn to properly select and size conductors for different applications
- Identify required applications of GFI protection equipment is required
- Learn proper grounding requirements

**Dates and Location(s):** March 28-30, 2006 Rapid City, SD

## Electrical Systems for the Non-Electrical Engineer (46050)

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**New**

This course focuses on the basic principles of industrial and commercial electrical power distribution design. Basic electrical concepts such as power factor, kVA, kW and inductive loads will be presented. Design philosophy and procedures will be discussed. Electrical construction materials and services will be covered along with advanced grounding and power quality concepts. Emphasis will be on understanding basic phenomena rather than on rigorous mathematical derivations.

**Who should attend:** Architects, non-electrical engineers, and others responsible for the lighting systems in facilities

**Course Length:** 5 days

**Continuing Education Units:** 3.2

**AIA Learning Units:** 32

**Objectives:**

- Obtain a sound understanding of design principles used to design electrical circuits in accordance with applicable safety and energy codes
- Familiarize yourself with basic electrical circuits and circuit parameters
- Gain general understanding of methods used to design lighting & power distribution systems for voltages 600 volts and below

**Dates and Location(s):**

November 14-18, 2005

Madison, WI

## Boiler Maintenance (45000)

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This training is an intense, practical "hands-on" seminar that emphasizes methods to achieving peak efficiencies, improvement of troubleshooting skills, and the establishment of an effective PM program. Topics to be covered: operation & maintenance, operator responsibilities, safety and housekeeping, boiler types, codes and standards, operating and safety controls, flame safeguard, combustion systems, water treatment, plant operation (startup, shutdown, cycling, emergencies, inspections, filling the boiler, lighting/raising pressure), repairs, and stack emissions.

**Who should attend:** Maintenance personnel, electrician & plumber technicians, maintenance supervisors, foremen, and facility managers.

**Course Length:** 5 days

**Continuing Education Units:** Not available

**Objectives:**

- Learn boiler construction features and essential components
- Learn how boilers, burners, and programmers integrate
- Learn combustion requirements and how to adjust burners for proper operation and maximum efficiency
- Learn the common failure modes and how to prevent them
- Learn advanced troubleshooting and problem-solving skills

**Dates and Location(s):**

October 24-28, 2005

Oklahoma City, OK

February 21-23, 2006

Anchorage, AK



**New**

## **Facilities Design-Build (44300)**

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This course is intended to present the fundamentals of the design-build process by focusing on the importance of integrated approaches to project delivery and interdisciplinary cooperation. Industry professionals experienced in the design-build process teach the course.

**Who should attend:** Area planners, facility engineers, facility managers, supervisors, staff engineers, and Branch Chiefs.

**Course Length:** 3 days

**Continuing Education Units:** 2.4

### **Objectives:**

- Explain the history and evolution of the project delivery system and define project delivery system terms.
- Explain how to determine the facility's business goals and the facility owner's profile and how these affect the project's chances of success
- Explain the procurement is, describe the various procurement methods, and explain how to choose the procurement method best suited for a given project.
- Describe the framework for project delivery, including major owner decisions, business goals, selecting a procurement method and project team, and steps in acquisition.

**Dates and Location(s):**

April 19-21, 2006

Albuquerque, NM

## **Emergency Generator O&M (44550)**

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This course is a technical overview of on-site power systems. Topics included in this training are basic engine theory, basic electricity and generator theory, and different types of controls systems. In general, anything needed to properly operate & maintain emergency power generation systems is covered. This training is an intense, practical "hands-on" seminar where students are introduced to different brands of generators, engine manufacturers, transfer switches, paralleling systems, and switchgear controls.

**Who should attend:** Maintenance personnel, electricians, mechanic, and facility managers and engineers. Anyone responsible for sustaining of constant power to a facility should attend.

**Course Length:** 3 days

**Continuing Education Units:** Not available

### **Objectives:**

- Become familiar with several different types of emergency generation systems
- Understand the relationship and interaction of engines, generators, regulators, controls, and switching
- Learn to size generators for different loads
- Understand the importance of preventive maintenance, including diesel fuel, battery maintenance, generator/engine testing, annual service and record keeping

**Dates and Location(s):**

January 10-12, 2006

Phoenix, AZ

**New**

## **ASSE 6040 Medical Pipeline Maintenance Course (49530)**

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The main focus of this course is provide those individuals who are responsible for maintaining, repairing and testing of the medical pipeline system, along with all connected components, the basic applications, operational theory, routine maintenance, and code and standard requirements for these products. This course provides a basic understanding of the different technologies used to supply, distribute, and administer medical gases and vacuum within healthcare facilities. Course will be conducted in a local hospital setting.

**Who should attend:** All candidates must be employed by a healthcare facility and shall have one year minimum experience in the maintenance of medical gas systems.

**Course Length:** 4 days

**Continuing Education Units:** Certification by exam at conclusion of course.

**Objectives:**

- Prepare individuals to evaluate their facility's medical pipeline maintenance needs, identify component problems, & quickly resolve first line medical pipeline and component problems.
- Be able to diagnose equipment malfunctions & give service provider proper details of problems that might occur during normal operation of medical pipeline equipment.
- Certification as NITC, ASSE 6040 Maintenance Person upon successful completion of course and exam.

**Dates and Location(s):** February 7-9, 2006 Albuquerque, NM

## **Health Systems Planning Process (44050)**

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This course discusses the up-front planning and preparation associated with Program Justification Documents (PJD) and Program of Requirement (POR) documents. This includes data collection, verification, and consultation associated with beginning the HSP process. Other considerations covered are RRM, the IHS space criteria for designing health care facilities, estimating new activation costs, and funding utilization.

**Who should attend:** Facilities engineers, tribal staff, planners, statisticians

**Course Length:** 2 days

**Continuing Education Units:**

**Objectives:**

- Understand how the process works before data entry into the HSP software occurs
- Identify the key consulting departments that should be in the HSP process

**Dates and Location(s):** May 2-4, 2006 Minneapolis, MN

## **Realty Basics (40600)**

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This course provides basic information on control and management of real property under the administrative jurisdiction of the IHS. It will cover the general guidelines and procedures for the acquisition, utilization, and disposal of owned and leased real property. Leasing and the various types of leasing IHS does will be presented. Quarters Management policies will also be presented.

**Who should attend:** OEHE Directors, Facilities engineers and managers, tribal staff, CEOs

**Course Length:** 2 days

**Continuing Education Units:** Not available

### **Objectives:**

- Review the laws that govern Real Property Asset Management
- Determine the Real Property Officer/FM/CEO role in various realty actions
- Understand actions that increase or decrease real property asset values & why
- Understand when to notify the Real Property Officer

**Dates and Location(s):** July 18-19, 2006 TBD

## **Cross Connection Control (55000)**

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The public health significance of cross connections in water utility systems will be covered. Fundamentals covered in this course; types and causes of backflow, types of backflow prevention assemblies, and their applications. Students will learn the requirements of backflow prevention associated with varying degrees of hazard. Standards and administrative requirements for a utility cross connection control program will be discussed in detail.

**Who should attend:** IHS or Tribal engineers and project managers, and EH staff

**Course Length:** 3 days

**Continuing Education Units:** 1.8

### **Objectives:**

- Review the elements of a cross connection control program
- Learn to identify backflow prevention devices
- Learn backflow device testing

**Date and Location:** April 4-5, 2006 Ft. Defiance, AZ

## **FACILITIES MANAGEMENT COURSES NOT OFFERED THIS FISCAL YEAR**

### **Construction under P.L. 93-638, Titles I & V/NEPA (11100)**

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This three-day seminar guides participants through Public Law 93-638 Construction under T-I and T-V. The options available to tribes under the law for a Title I contract or a Title V compact are covered in depth with examples presented for both options. The course is designed for tribal and IHS personnel involved in P.L. 93-638 construction activities.

### **Diagnosing Indoor Air Quality (19000)**

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This course is an introduction to air quality concepts. It includes the identification of hazards, evaluation techniques and sampling methods. Students will learn what impact building dynamics plays on the indoor air quality. They will also have the opportunity for “hands-on” exercises to measure and assess volatile organic compounds (VOCs), bio-aerosols, and other hazardous indoor air contaminants including carbon monoxide and radon. Topics will be discussed from a routine institutional standpoint, as well as in emergency settings.

### **Remediating Indoor Air Quality Problems (19010)**

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This course addresses techniques and methods to “cure” buildings of the most difficult class of indoor air contaminants – biological contaminants. The course content will extend to techniques and methods that have proven unsuccessful in remediation of contamination problems as well as those methods that have had success.

### **Hands-on Maintenance Training #1 (49000)**

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A basic maintenance course that covers maintenance problems encountered in housing or facility maintenance. Participants will be taken step-by-step through many different electrical and plumbing repairs. Detailed demonstrations will be utilized to explain how proven maintenance techniques can be used for troubleshooting, testing for problems, and for making adjustments, repairs, and replacements.

### **Hands-on Maintenance Training #2 (49100)**

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This maintenance course is an extension of the basic Hands-on Maintenance Training. This course will cover determination of wire size and breakers for various circuits, GFCI receptacle wiring for single locations, and various wiring configurations for duplex receptacles, 3 and 4-way switches. Students will learn how to repair Sloan valves and other plumbing valves, and how to design and build plumbing systems.

### **Maintaining Asphalt Pavements (48500)**

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This course will provide instruction on methods of selecting and implementing preventive maintenance techniques for asphalt pavements. Instruction includes information on cost-effective crack sealing and overlays, durable patching and innovative recycling, alternative surface treatments, and materials and methods for streets, highways, and parking lots.

## **Mechanical Inspection (46200)**

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This 5-day course will be a comprehensive review of the international codes related to mechanical systems and applications in critical inspection areas. The course is designed for those individuals involved in inspecting existing and new installations. Instruction emphasizes the international mechanical code and fuel gas codes.

## **National Fire Alarm Code – NFPA 72 (46700)**

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This 2-day “hands-on” course covers the requirements for compliance with the National Fire Alarm Code (NFPA 72). Students will learn when and where codes apply and what is actually required. Course agenda will include fundamentals of fire alarm systems, household fire warning equipment, protected premises fire alarm systems, initiating devices, and inspecting, testing and maintenance.

## **Fire Protection Systems – NFPA 25 (46800)**

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This 3-day course covers the fire safety codes pertaining to the installation, inspection, testing and maintenance of fire protection systems in health care facilities. It will provide an overview of the types of sprinkler systems and the inspection, tests, and maintenance requirements for these systems. In addition, the inspection, tests, and maintenance of fire alarm systems, kitchen hood systems, and fire extinguishers will be covered. Each participant will receive a copy of NFPA 25, “Inspection, Test, and Maintenance of Water Based Extinguishing Systems” and a copy of the NFPA book Fire Protection Systems, Inspection, Test, and Maintenance Manual.

## **International Plumbing Code – IPC (46110)**

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The International Plumbing Code establishes the standards for the protection of public health, safety and welfare through the proper installation and inspection of plumbing systems. This 2-day “hands-on” course will provide code requirements pertaining to plumbing materials, types of joints, plumbing fixtures, water heater installations, water distribution systems, sanitary drainage systems, traps, testing, and heating.

## **Certification for Radiological Equipment Specialist (CRES) (49510)**

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This 5-day course is designed to teach the experienced biomedical technician the requisite knowledge necessary to successfully pass the CRES test. Subjects covered include radiation physics, radiation safety, anatomy, physiology, x-ray equipment use, CDRII compliance testing, electronics, and troubleshooting.

## **PACS, DICOM, and Teleradiology System Maintenance (49520)**

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This 5-day course provides the necessary information for service professionals to maintain imaging systems. This rapidly expanding field includes the integration of digital imaging modalities (DICOM) into a picture archiving and communications system (PACS), and teleradiology system maintenance. Emphasis is placed on network topologies, DICOM compatibility, teleradiology, hardware components, software options, system configuration, security principles, network system maintenance, system integration, and network troubleshooting.

## **Biomedical Test Equipment (49500)**

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This course instructs on the proper use of biomedical test equipment. The training will feature “hands on” DNI product training. Emphasis is placed on skill development and productivity through integrating biomedical test equipment with the Sentinel 32 computerized maintenance management system for biomedical devices.

## **HVAC for Health Care Facilities (45500)**

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The training program will provide information necessary to understand how HVAC systems function and their role in a healthcare setting. Because of the nature of healthcare facilities and importance of HVAC in many segments of these facilities, the course will focus specifically on the special use requirements for healthcare facilities that encompass both clinics and hospitals.

The program will provide an overview of heating, ventilation, and air-conditioning systems with an emphasis on healthcare facilities (hospitals and clinics). In addition to covering the fundamentals of HVAC systems, an overview of commissioning is included in the course.

## **Direct Digital Controls (DDC) for HVAC (44600)**

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This five-day course gives students in-depth information on the Direct Digital Controls (DDC) systems available today. In addition, students learn how DDC systems operate, how to utilize DDC for a variety of input/output devices and how to achieve optimum control strategies and energy management objectives. Students will also learn DDC programming concepts and how to use DDC for system diagnostics.

## **Commissioning of HVAC Systems (45600)**

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This 5-day course provides the technical skills necessary to commission HVAC and control systems in commercial buildings. The course combines focused classroom training with hands-on lab sessions. Systems to be commissioned include device level testing for sensors and actuators, component level testing for coils, fans, pumps, dampers, and valves, terminal units testing for VAV boxes and coil units, air handling units, hydronic systems, and primary equipment. Live DDC workstations will be used for DDC system front-end setup, graphics, trending and alarming functions.

## **Health Systems Planning (44000)**

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This 3-day course covers the Health Systems Planning (HSP), the IHS space criteria for designing health care facilities, discussion of the various templates (clinical space modules) used in IHS when designing healthcare construction, Program Justification Document (PJD) / Program of Requirement Document (POR), estimating new activation costs, and funding utilization. Approximately one-day is RRM calculations and the impacts on the HSP module.

## **Basic Plan Review for Health Care Facilities (47000)**

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This course provides the basic principles of plan review for means of egress and fire protection. The course covers plans and specification content, typical drawing conventions, architectural symbols, detail and section symbols, as well as code information, the “how-to” of performing a plan review, and how not to “miss” important egress and fire protection features. The plan review instruction will be based on the NFPA Life Safety Code, and it is assumed that attendees have some knowledge of the code. Each student will receive the latest version of the Life Safety Code.

## **Control of Infectious Agents Through Building Design (47100)**

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Concerns about mold and the appearance of other little-understood, elusive microbes highlight the seriousness of effective control of infectious agents and other contaminants in healthcare facilities. This practical, multidisciplinary course will address these concerns. The course will present techniques that healthcare administrators, facility planners, consulting engineers or infection control specialists can use to gain proficiency in infection control.

## **Health Facilities Data System & Asset Management (44160)**

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This course provides an overview of the Health Facilities Data System and a discussion of current topics in asset management. Presentation of material will be interspersed with hands-on computer practice sessions. Attendees will be provided a current review of facility data base operations and their implementation within the facilities management program.

## **Assets Management (44150)**

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This course is presented by the Facilities Program Development Branch, Headquarters, and provides specific training on the HFDS Projects Module. It is intended that the students will have a better understanding of CIP impacts on the entire processing of documents related to construction, property inventories, beneficial occupancy, and final closeout.

## **Cost Estimating (44100)**

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This course teaches the RS Means programs for estimating new, renovated, and repair projects. Course structure allows students opportunities to learn several different Means modules. Modules include Repair & Remodeling, Unit Price, Square Foot, and Facilities Maintenance & Repair Estimating. Students will achieve a thorough and complete understanding of the Means cost data, including material, labor and equipment costs, productivity and crews. Students will learn to analyze and apply factors that impact project costs.